

REMARKS

As an initial matter, and in response to the Examiner's assertion that Applicants' written remarks in the Amendment After Final filed June 14, 2006, concerning reasons why Applicants' claims are allowable are "unclear," Applicants respectfully submit that they have made a bona fide attempt in this reply to address any perceived lack of clarity. In particular, the Examiner has indicated that he does not understand Applicants' comments concerning how the "cited references fail to disclose or suggest all of the subject matter recited in the independent claim(s) and applicants do not support that by indicating /pointing out why/where/how .etc [sic] examiner's cited references' failure(s)" Office Action at 2 (emphasis in original).

Applicants respectfully submit that a claim rejection under 35 U.S.C. § 103(a) is improper unless all of the subject matter recited in each claim rejected is disclosed or suggested in the cited reference or references. See, e.g., M.P.E.P. § 2143. In the Amendment After Final filed on June 14, 2006, Applicants noted that the independent claims of the present application should be allowed because, inter alia, the references cited in the rejections do not disclose or suggest all of the subject matter recited in any of the claims of the present application. Applicants also pointed out at least one example of subject matter recited in each of the independent claims that is neither disclosed nor suggested by the cited references. Thus, each of the independent claims of the present application should be allowable because the cited references do not disclose or suggest all of the subject matter recited in each of the independent claims.

In this Request for Reconsideration, Applicants respectfully submit that they have made a bona fide attempt to clearly identify examples of how the prior art references

relied on in the claim rejections do not disclose or suggest all of the subject matter recited in each of the independent claims of the present application. To the extent, however, that the Examiner does not understand any of Applicants' comments concerning reasons why the claims of this application are patentably distinguishable from the references relied on in the claim rejections, Applicants cordially invite the Examiner to contact Applicants' undersigned representative at the telephone number provided herein, and Applicants' representative will be more than happy to discuss Applicants' written remarks.

I. Section 103(a) Claim Rejection Based on Koga and Fiaschetti

In the Office Action, claims 1, 4, and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,670,830 to Koga et al. ("Koga") in combination with U.S. Patent No. 5,901,684 to Fiaschetti et al. ("Fiaschetti"). Claim 1 is the only independent claim rejected under § 103(a) based on the Office Action's proposed, hypothetical combination of the Koga and Fiaschetti references, and Applicants respectfully traverse the rejection of independent claim 1 because the Examiner has failed to establish a *prima facie* case of obviousness. Applicants respectfully submit that Koga and Fiaschetti, regardless of whether they are viewed individually or as a whole, fail to disclose or suggest all of the subject matter recited in Applicants' independent claim 1.

In order to establish a *prima facie* case of obviousness, among other requirements, "the prior art . . . references . . . must teach or suggest all the claim limitations." M.P.E.P. § 2142 (emphasis added). Further, even if all of the subject

matter recited in a claim is taught or suggested by a combination of references, "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one having ordinary skill in the art, to modify the reference or to combine reference teachings." Id. In other words, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination."

§ 2143.01 (citation omitted).

Applicants' independent claim 1 is directed to a power management system for a machine, including, among other recitations, "a power source configured to receive a fuel supply based on a fuel curve associated with the machine; . . . and a control system . . . , wherein the control system is operative to modify at least a portion of the fuel curve to reduce the fuel supply when a load condition of the power source exceeds a desired amount." Neither the Koga reference nor the Fiaschetti reference discloses or suggests "a control system . . . , wherein the control system is operative to modify at least a portion of [a] fuel curve to reduce the fuel supply when a load condition of [a] power source exceeds a desired amount."

In the rejection statement, the Examiner asserts that Koga teaches "a power source configured to receive a fuel supply based on a fuel curve associated with the machine (see Koga et al., Fig. 1 refs. 13, 9)" Office Action at 2-3. The Examiner also asserts that Koga teaches "a control system 'in communication' with the power source and the transmission (see Koga et al., Fig. 1 refs. 13, 9), the control system being configured to determine a fuel supply limit associated with a desired speed of the

power source (see Koga et al., Fig. 2), the fuel supply limit being determined (see Koga et al., claim 1)." Id.

Applicants respectfully disagree with the Examiner's interpretation of Koga. For example, Koga does not disclose a power source configured to receive a fuel supply based on a fuel curve associated with the machine, as asserted by the Examiner. In particular, the portions of Koga to which the Examiner refers in purported support of the Examiner's assertion about what Koga discloses (i.e., Fig. 1 and reference numerals 9 and 13) actually relate to a "drive management controller 9" and a "fuel tank 13." Further, Koga describes Fig. 1 as "a simplified block diagram showing an essential construction of a fuel use limiter-equipped hybrid electric car" (Col. 7, lines 45-47.) Thus, the portions of Koga to which the Examiner refers, do not disclose or suggest a power source configured to receive a fuel supply based on a fuel curve associated with the machine, as asserted by the Examiner. In particular, Koga does not disclose a fuel supply based on a fuel curve.

Concerning the Examiner's assertion that Koga discloses a control system being configured to determine a fuel supply limit associated with a desired speed of the power source, Applicants respectfully disagree with the Examiner's interpretation of Koga. In particular, Koga does not disclose or suggest determining a fuel supply limit associated with a desired speed of the power source, as asserted by the Examiner. The Examiner refers to Fig. 2 and claim 1 in purported support of the assertion. Applicants respectfully submit that neither of those portions of Koga support the Examiner's assertions regarding disclosure of determining a fuel supply limit associated with a desired speed of the power source. In particular, Koga describes Fig. 2 as being "a diagram illustrating

a specific example of output limiting characteristics of the fuel use limiter-equipped hybrid electric car” (Col. 7, lines 48-50.) Further, Koga’s claim 1 does not recite any subject matter relating to determining a fuel supply limit associated with a desired speed of the power source.

Applicants respectfully note the Koga reference relates to a series, hybrid electric car equipped with an internal combustion engine for driving a generator to produce electric power for an electric drive motor, and a parallel hybrid electric car equipped with an internal combustion engine for directly driving wheels, equipped with a “fuel use limiter.” (Col. 1, lines 6-14.) The Koga reference discloses that the “primary object” of it’s “invention” is “the provision of a fuel limiter-equipped hybrid electric car which can lead a driver to running without relying upon an internal combustion engine.” (Col. 3, lines 6-10.)

To accomplish Koga’s “primary object,” Koga discloses a fuel use limiter-equipped hybrid electric car. (Col. 3, lines 29-30.) Electric power is supplied from a battery unit under the control of a control means to operate an electric drive motor to drive the wheels of the car. (Col. 3, lines 30-33.) The battery unit can be charged by an external charging means or by a generator driven by an internal combustion engine. (Col. 3, lines 33-37.) A fuel-use-state detection means detects a change corresponding to a quantity of fuel that has been used by the internal combustion engine since charging of the battery unit by the external charging means. (Col. 3, lines 41-45.) Once the change in the quantity of fuel used has reached a predetermined value, the control means limits at least one of an output of the electric drive motor and that of the internal engine. (Col. 3, lines 45-48.) In particular, Koga discloses that when operation of the

car is continued without external charging while using fuel to power the internal combustion engine, the output of the electric drive motor or that of the internal combustion engine is limited once the amount of fuel used has reached the predetermined level, whereby the driver is urged to perform external charging. (Col. 3, lines 48-54.) Koga discloses that as a result, it is possible to promote operation of the car via electric power and the electric motor rather than relying solely on the fuel-powered internal combustion, regardless of the capability of the car to operate solely on the internal combustion engine. (Col. 3, lines 55-57.)

Thus, Koga does not disclose or suggest a power source configured to receive a fuel supply based on a fuel curve associated with a machine, at least because Koga does not include any disclosure relating to a fuel curve. Further, Koga does not disclose or suggest a control system configured to determine a fuel supply limit associated with a desired speed of the power source. Koga simply does not relate to such subject matter.

In the rejection statement, the Examiner acknowledges the Koga reference's failure to disclose subject matter recited in independent claim 1. In particular, the Examiner concedes that "Koga et al. do not expressly disclose that the fuel supply limit is determined from a fuel curve associated with the machine." Office Action at 3. The Examiner asserts, however, that "this was the desirability of every car's designer - to perfect the engine's performance according to a predetermined curve . . . , wherein the control system is operative to modify at least a portion of the fuel curve based on a load condition of the power source (see Koga et al., Fig. 3)." Id.

Applicants respectfully note that the Examiner's assertion regarding "the desirability of every car's designer - to perfect the engine's performance according to a predetermined curve," is improper at least because it is completely unsupported by any prior art reference. In particular, Koga does not mention any fuel supply curve. Koga's Fig. 3 is not a fuel supply curve. In fact, the Examiner's reference to Fig. 3 in purported support of the assertion about fuel supply curves is inaccurate at least because Figs. 2 and 3 of Koga relate to the output of an electric motor, which does not use fuel. Thus, the Examiner's assertion about modifying an alleged fuel supply curve of Koga is improper, at least because Koga does not disclose or suggest a fuel supply curve to modify.

The Examiner also concedes that Koga does not disclose "a capability of modifying a fuel supply of a vehicle." Office Action at 3. The Examiner asserts, however, that Fiaschetti "suggest[s] about modifying a fuel supply source - to reduce the fuel supply when a load condition of the power source exceeds an amount - by controlling a Fuel Injector 124 (see Fiaschetti et al., Fig. 4)." Id.

Applicants respectfully disagree with the Examiner's interpretation of Fiaschetti. In particular, Fiaschetti does not disclose reducing a fuel supply when a load condition of the power source exceeds an amount, as asserted by the Examiner. The Examiner's reference to Fiaschetti's Fig. 4 and fuel injector 124 in purported support of the assertion merely relates to Fiaschetti disclosing a fuel injector, but does not support the Examiner's assertion that Fiaschetti discloses reducing a fuel supply when a load condition of the power source exceeds an amount. In fact, Fiaschetti does not include any disclosure relating to "modify[ing] at least a portion of [a] fuel supply curve to reduce

the fuel supply when a load condition of the power source exceeds a desired amount," as recited in Applicants' independent claim 1. Although Fiaschetti discloses modifying fuel injection to an internal combustion engine to reduce hydrocarbon emissions at cold engine start, Fiaschetti does not disclose modifying a fuel supply curve to reduce the fuel supply when a load condition of the power source exceeds a desired amount. Further, even if for the sake of argument, Fiaschetti disclosed such subject matter, there is no suggestion or motivation in either Koga or Fiaschetti to modify Koga's disclosure in the Examiner's proposed, hypothetical manner. As outlined above, Koga does not include any disclosure relating to fuel curves, and Fiaschetti does not include any disclosure relating to reducing reliance on a fuel-powered internal combustion engine in a hybrid electric car. Thus, it would not have been obvious to a person of ordinary skill in either Koga or Fiaschetti's respective arts, when viewing Koga and Fiaschetti as a whole, to modify a fuel supply curve to reduce the fuel supply when a load condition of the power source exceeds a desired amount.

For at least the above-outlined reasons, the Koga and Fiaschetti references, regardless of whether they are viewed individually or as a whole, fail to disclose or suggest all of the subject matter recited in Applicants' independent claim 1. For at least this reason, the Office Action has failed to set forth a *prima facie* case of obviousness. See M.P.E.P. § 2143. As a result, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of independent claim 1 based on the Examiner's proposed, hypothetical combination of the Koga and Fiaschetti references.

II. Section 103(a) Claim Rejection Based on Koga, Fiaschetti, and Rini

In the Office Action, claims 2, 3, 9, 13, 15, and 17 were rejected under 35 U.S.C. § 103(a) based on Koga in combination with Fiaschetti and U.S. Patent No. 5,121,324 to Rini et al. ("Rini"). Claims 2 and 3 are the only independent claims rejected under § 103(a) based on the Office Action's hypothetical combination of the Koga, Fiaschetti, and Rini references, and Applicants respectfully traverse the rejection of independent claims 2 and 3 because the Examiner has failed to establish a *prima facie* case of obviousness. Applicants respectfully submit that the Koga, Fiaschetti, and Rini references, regardless of whether they are viewed individually or as a whole, fail to disclose or suggest all of the subject matter recited in either independent claim 2 or independent claim 3.

A. Independent Claim 2

Applicants' independent claim 2 is directed to a power management system for a machine, including, among other recitations, "a power source configured to receive a fuel supply based on a fuel supply limit associated with the machine; . . . and a control system in communication with the power source and the transmission, the control system being configured to modify the fuel supply limit to reduce the fuel supply, the fuel supply limit being regulated based on rack position and a load condition of the power source exceeding a desired amount." The Koga, Fiaschetti, and Rini references, regardless of whether they are viewed individually or as a whole, fail to disclose or suggest "a control system . . . configured to modify [a] fuel supply limit to reduce the fuel

supply, the fuel supply limit being regulated based on rack position and a load condition of [a] power source exceeding a desired amount.”

In the rejection statement, the Examiner indicates a reliance on the “rationales and references” included in the rejection of independent claim 1 under 35 U.S.C. § 103(a) based on Koga and Fiaschetti. Office Action at 5. Applicants respectfully submit that to the extent that the deficiencies with the “rationales” outlined previously herein with respect to the rejection of independent claim 1 apply to the rejection of independent claims 2 and 3, those deficiencies render the rejection of independent claims 2 and 3 improper as well. Thus, for at least the same reasons the rejection of independent claim 1 under § 103(a) based on Koga and Fiaschetti should be withdrawn, the rejection of independent claims 2 and 3 under § 103(a) based on Koga, Fiaschetti, and Rini should be withdrawn. Moreover, the rejection of independent claims 2 and 3 under § 103(a) based on Koga, Fiaschetti, and Rini should be withdrawn for at least the additional reasons explained in more detail below.

In the Office Action, the Examiner concedes in the rejection statement that Koga and Fiaschetti do not disclose “the fuel supply curve being regulated based on rack position and a load condition of the power source.” Office Action at 5. The Examiner asserts, however, that Rini “teach[es] about using a rack position (FUEL RACK POSITION SENSOR 2007) and a load condition (ENGINE SPEED SENSOR 2005) to determine a signal for controlling FUEL SHUT-OFF (2010) (i.e., to reduce a power supply).” Id. The Examiner thereafter concludes that “[i]t would have been obvious . . . to combine Koga et al., Fiaschetti et al., and Rini et al. to suggest that a fuel supply limit being regulated based on rack position and a load condition of the power source for the

advantage of applying optimum working condition to a vehicle (e.g., raising to a higher efficiency level).” Id.

Applicants respectfully disagree with the Examiner’s assertion about what Rini discloses and about what would have been obvious based on Koga, Fiaschetti, and Rini. Applicants respectfully submit that Rini does not disclose using a load condition to determine a signal for reducing a power supply, as asserted by the Examiner. In particular, Rini does not disclose sensing load condition. The Examiner apparently asserts that by virtue of disclosing an “engine speed sensor 2005,” Rini discloses sensing a load condition of the power source. Applicants respectfully note that disclosure of sensing engine speed does not result in disclosure of sensing power source load. Further, independent claim 2 recites, in pertinent part, a control system “configured to modify the fuel supply limit to reduce the fuel supply, the fuel supply limit being regulated based on rack position and a load condition of the power source exceeding a desired amount.” Rini does not disclose or suggest regulating a fuel supply limit based on a load condition of the power source exceeding a desired amount, regardless of whether Rini discloses sensing engine load.

Moreover, even if it were admitted, for the sake of argument, that Rini discloses regulating a fuel supply limit based on a load condition of the power source exceeding a desired amount, there is no legally proper suggestion or motivation supporting the Examiner’s proposed, hypothetical combination of the Koga, Fiaschetti, and Rini references. The Examiner’s conclusion that a person having ordinary skill in the art would combine the three references in a particular manner such that Applicants’ independent claim 2 is rendered obvious is improper at least because the Examiner has

not supported the conclusion with any prior art-based evidence. Rather, the Examiner appears to have used Applicants' independent claim 2 as a recipe to selectively pick from unrelated references in an improper hindsight fashion for the sole purpose of rejecting Applicants' independent claim 2.

For at least the above-outlined reasons, Applicants respectfully submit that the Examiner's proposed, hypothetical combination of the Koga, Fiaschetti, and Rini references fails to disclose or suggest all of the subject matter recited in Applicants' independent claim 2. Further, there is no legally proper motivation or suggestion to combine the references in the Examiner's proposed, hypothetical manner, and the Koga, Fiaschetti, and Rini references, when viewed as a whole by a person having ordinary skill in the art, would not render Applicants' independent claim 2 obvious. Thus, the Examiner has failed to establish that Applicants' independent claim 2 is *prima facie* obviousness based on the Koga, Fiaschetti, and Rini references, regardless of whether they are viewed individually or as a whole. Therefore, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of independent claim 2 based on the Examiner's proposed, hypothetical combination of the Koga, Fiaschetti, and Rini references.

B. Independent Claim 3

The Examiner has apparently relied on the same rationale in support of the rejection of independent claim 3 under § 103(a) based on Koga, Fiaschetti, and Rini as for the rejection of independent claim 2, discussed above. For at least the same

reasons outlined above, the rejection of independent claim 3 under § 103(a) based on Koga, Fiaschetti, and Rini should be withdrawn.

Applicants' independent claim 3 is directed to a method for operating a power management system, including, among other recitations, "modifying [a] fuel supply limit to reduce the fuel supply being supplied to [a] power source based on rack position and a load condition of the power source exceeding a desired amount." The Koga, Fiaschetti, and Rini references, regardless of whether they are viewed individually or as whole, fail to disclose or suggest "modifying [a] fuel supply limit to reduce the fuel supply being supplied to [a] power source based on rack position and a load condition of the power source exceeding a desired amount."

As outlined previously herein with respect to independent claim 2, Applicants respectfully submit that Rini does not disclose using a load condition to determine a signal for reducing a power supply, as asserted by the Examiner. Further, independent claim 3 recites, in pertinent part, "modifying [a] fuel supply limit to reduce the fuel supply being supplied to the power source based on rack position and a load condition of the power source exceeding a desired amount." Rini does not disclose or suggest modifying a fuel supply limit based on a load condition of the power source exceeding a desired amount. Further, there is no legally proper suggestion or motivation supporting the Examiner's proposed, hypothetical combination of the Koga, Fiaschetti, and Rini references.

For at least the above-outlined reasons, Applicants respectfully submit that the Examiner's proposed, hypothetical combination of the Koga, Fiaschetti, and Rini references fails to disclose or suggest all of the subject matter recited in Applicants'

independent claim 3. Further, the Koga, Fiaschetti, and Rini references, when viewed as a whole by a person having ordinary skill in the art, would not render Applicants' independent claim 3 obvious. Thus, the Examiner has failed to establish that Applicants' independent claim 3 is *prima facie* obviousness based on the Koga, Fiaschetti, and Rini references, regardless of whether they are viewed individually or as a whole. Therefore, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of independent claim 3 based on the Examiner's proposed, hypothetical combination of the Koga, Fiaschetti, and Rini references.

III. Section 103(a) Rejections of Dependent Claims 5-7, 10-12, 14, and 16

In the Office Action, dependent claims 5-7, 10-12, 14, and 16 were rejected under 35 U.S.C. § 103(a) based on Koga and Fiaschetti in combination with one or more of the following: U.S. Pat. App. Pub. No. US 2002/0133279 to Manning; Rini; and U.S. Patent No. 4,885,690 to Schimmel et al. The dependent claims each depend from one of allowable independent claims 1, 2, and 3. Therefore, those dependent claims should be allowable for at least the same reasons their corresponding independent claim is allowable.

IV. Conclusion

As outlined above, independent claims 1-3 should be allowable. Dependent claims 4-17 each depend from one of allowable independent claims 1-3. Therefore, each of those dependent claims should be allowable for at least the same reasons their

corresponding independent claim is allowable, as well as by virtue of their recitations of additional novel and non-obvious subject matter.

Applicants respectfully request reconsideration of this application, withdrawal of the outstanding claim rejections, and allowance of claims 1-17.

If the Examiner believes that a telephone conversation might advance prosecution, the Examiner is cordially invited to call Applicants' undersigned attorney at (571) 203-2739.

Although Applicants respectfully submit that they have addressed every claim rejection included in the Office Action of September 5, 2006 in accordance with 37 C.F.R. § 1.111 and M.P.E.P. § 714.02, Applicants respectfully submit that the Office Action contains a number of assertions concerning the related art and the claims. Regardless of whether those assertions are addressed specifically herein, Applicants respectfully decline to necessarily subscribe to them.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 6-0916.

Respectfully submitted,

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